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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,556	10/17/2001	Arnold G. Slezak	P1535US01	6786

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EXAMINER

TUGBANG, ANTHONY D

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/981,556

Applicant(s)

SLEZAK, ARNOLD G.

Examiner

A. Dexter Tugbang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 5-33 is/are pending in the application.
- 4a) Of the above claim(s) 10-20 and 25-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-9 and 21 is/are rejected.
- 7) ☒ Claim(s) 22-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendments***

1. The applicant(s) amendment filed on May 31, 2006 has been fully considered and made of record.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. The rejections below are repeated below merely for the applicant(s) convenience.

***Election/Restrictions***

4. The restriction requirement dated April 22, 2005 is hereby repeated and maintained. The applicant(s) election with traverse of Group I, Claims 1, 3, 5-9 and 21-24, in the reply filed on May 31, 2006 is again acknowledged. The traversal is on the ground(s) that the examiner has not provided any materially different processes between the groups and that the examiner's reasons for distinctness are irrelevant. This is simply not found persuasive for the reasons at least argued by the examiner in the Office Actions mailed on March 1, 2006 and August 22, 2006.

The requirement is still deemed proper and is therefore made FINAL.

5. Claims 25-33 continue to stand withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on May 31, 2005.

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6. Claims 10-20 continue to stand as being withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on June 18, 2004.

***Claim Rejections - 35 USC § 102***

7. Claims 1, 3, 5, 7, 9 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuroba et al 6,081,990.

Kuroba discloses a method comprising: placing prewritten discs 20, each characterized by servo tracks that are offset in relation to a common angular reference axis around a motor hub (spindle 21), the prewritten discs placed with respect to each other disposing the angular references axes symmetrically around the motor hub; and biasing each disc in a direction of the respective angular reference axis to concentrically align the servo tracks of a first disc of the prewritten discs with the servo tracks of a second disc of the prewritten discs (see various embodiments of Figures 1a, 4, 7a, 7b, 8a and 8c).

The term “biasing” is read as the effect of balancing the disc, or movement of the disc, necessary for balancing the discs on the hub during assembly of the disc drive (see col. 8, lines 31+). The “common angular reference axis” for each disc can be read as any axis along each disc used in biasing or balancing the disc as the servo tracks will be offset in relation to this “common angular reference axis”.

Regarding Claim(s) 7, Kuroba further teaches a reference mark 22 that can be read as the “indicia”

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Regarding Claim(s) 3, Kuroba further teaches that biasing includes pressingly engaging each disc, which would include an edge of each disc against the motor hub.

Regarding Claim(s) 5, because Kuroba teaches first and second discs that are biased, the biasing or balancing forces for each disc has “different nonopposite directions” because each disc can have more than one reference axis (marks 22) and thus, have different common angular reference axes disposed.

Regarding Claim(s) 9 and 21, Kuroba further teaches that the angular reference axis can comprise of a first indicia and a second indicia (see col. 6, lines 65+), i.e. more than one reference mark 22, in which the second indicia is different from the first indicia because each are at different locations. One location of the first indicia would include a first line that is coextensive with the angular reference and a second line (taken from a second or different indicia) would be angularly disposed from the first line of the first indicia. The first and second indicia of Kuroba can be said to be on different sides of the disc to the same extent that the applicant’s first and second indicia are on different sides of the disc.

### ***Claim Rejections - 35 USC § 103***

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroba et al.

Kuroba discloses the claimed manufacturing method as relied upon above, further including that the first and second discs are biased with a balancing force from different directions or angles (see col. 8, lines 31+). Kuroba does not necessarily mention that the first and second disc can each be biased in “substantially opposite directions”. However, to bias or balance the first and second disc from an opposite direction is considered to be an effective

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variable within the level of ordinary skill in the art of assembling discs onto a motor hub. To bias the first and second discs from different directions, including “substantially opposite directions”, are necessary to balance the discs on the motor hub for proper operation of the disc drive or disc assembly.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Kuroba by biasing the first and second discs from substantially opposite directions, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Kuroba by biasing the first and second discs from substantially opposite directions to achieve proper operation of the disc drive.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroba et al in view of JP’442.

Kuroda discloses the claimed manufacturing method as relied upon above in Claim 1. Kuroda does not mention that the angular reference axis includes a laser index mark.

JP’442 teaches that an angular reference axis (inner surface of discs) can include a laser index mark 12 to advantageously have quality information on the disc itself (see PURPOSE).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the angular reference axis of Kuroda by including the laser index mark, as taught by JP’442, to positively provide quality information in the disc itself.

***Response to Arguments***

10. The applicant(s) arguments filed May 31, 2006 have been fully considered but, are again not found to be persuasive.

In regards to the merits of Kuroba et al, the applicant(s) argue that Kuroba does not teach “placing prewritten discs, each characterized by servo tracks that are offset in relation to a *common angular reference axis* of each disc”. The applicant(s) continue to assert that Kuroba does not teach any common angular reference axis.

The examiner, again, most respectfully disagrees. The examiner reiterates that the common angular reference axis was not read as the marker 22 by itself. One example of a common angular reference axis can be read as a *line drawn from the reference marker 22 to the inner surface of the disc where the disc makes contact with the hub 21* (see Fig. 1(b)). The timing mark 22 is not an axis by itself, but it is a line drawn through the mark 22 that forms the “common angular reference axis”. However, each disc has more than one “common angular reference axis” or angular reference axes, which can be used in biasing or balancing the disc in relation to the servo tracks.

Kuroba additionally shows that the discs would each have servo tracks with directions of these tracks placed along the surface of the disc (see Fig. 11a through 11c). The direction and location of these servo tracks all along the surface of the discs would be *offset* in nearly an orthogonal manner or nearly a perpendicular relationship when compared to the direction of the common angular reference axis.

***Allowable Subject Matter***

11. Claims 22 through 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

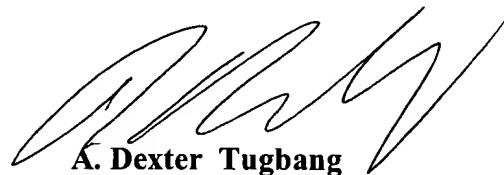
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 571-272-4570. The examiner can normally be reached on Monday - Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**A. Dexter Tugbang**  
**Primary Examiner**  
**Art Unit 3729**

August 15, 2006